



**Supplementary Fig. 1** Mucins and their interacting partners determined using the BioGRID database. BioGrid an online repository of protein, chemical and genetic interactions. Physical interactions of all mucins were assessed using BioGrid to identify the interactions and the functional implications thereof. **a.** Network of the physical interactions of transmembrane mucins, MUC12, MUC13, MUC14, MUC15, MUC16, and MUC20. **b.** Network of the physical interactions of secreted mucins, MUC2, MUC5B, and MUC9. Mucins are in the center of each interactome. The edge thickness connecting the mucin with its partners is linked to the number of times the interaction has been experimentally verified. Interactions with proteins not observed in humans, but in other organisms, are indicated by a yellow node